TOPOGRAPHIC SURVEY CONTROL POINT RECORD

STATION LONG NAME	MU21	
STATION NUMBER	MU21	
4 CHAR ID	MU21	
COUNTRY	IRAQ	
LOCATION	AL MUTHANA	
SURVEYING AGENCY	IGRS	
DATE (OF DESCRIPTION)	04 JULY 05	

CONTENTS	YES	NO	NO OF PAGES
FIELD COORDINATE VALUES	Х		1
OFFICE COORDINATE VALUES	Х		1
STATION MONUMENT & SITE DETAILS	Х		1
STATION DIAGRAM	Х		1
ACCESS MAP	Х		1
ACCESS DESCRIPTION	Х		1
APPROACH PHOTOGRAPHS	Х		1
CARDINAL POINT PHOTOGRAPHS	Х		2

RECORD OF VISITS

DATE OF VISIT	NAME	UNIT	REMARKS

ADDITIONAL DETAILS/ENCLOSURES

CONTENTS	NO OF PAGES

SECURITY CLASSIFICATION

FIELD COORDINATE VALUES

STATION LONG NAME	MU21
4 CHAR ID	MU21
STATION NUMBER	MU21

THIS STATION IS NEW	YES
NEARLY IDENTICAL WITH	N/A

FIELD VALUES FROM THE RECEIVER / HAND HELD GPS – IN WGS84

LATITUDE N	31° 11′ 39.92″		
LONGITUDE E	45° 32' 03.20"		
HT (M)	+08		
GRID ZONE DESIGNATOR	38R		
MGRS GRID	38R NV 50898 51273		
SURVEYING AGENCY	IGRS		

FIELD INPUT BY: LCPL AVIS	UNIT: IGRS	DATE: 04 JULY 2005
FIELD CHECKED BY: SPR LOCKHART	UNIT: IGRS	DATE: 04 JULY 2005

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OFFICE COORDINATE VALUES

WGS 84 ADJUSTED VALUES AS AT: 25 Aug 05

LATITUDE N	31° 11' 39.77651"	
LONGITUDE E	045° 32' 03.16649"	
SPHEROIDAL HT (M)	1.665	
EGM96 GEOID MODEL HT (M)	-8.667	
ORTHOMETRIC HT (M)	10.332	
VERTICAL DATUM	WGS 84	
GEOID MODEL USED	EGM 96	
RELATIVE TO	CORS STATIONS	
RELATIVE POSITION ACCURACY	0.036	
RELATIVE HEIGHT ACCURACY	0.056	
ADJUSTING AGENCY	OPUS	
ADJUSTMENT DATE	25 AUG 2005	

LOCAL DATUM VALUES AS AT: 25 Aug 05

SPHEROID	N/A
PROJECTION	N/A
GRID	N/A
VERTICAL DATUM	N/A
LATITUDE N/S	N/A
LONGITUDE E/W	N/A
EASTINGS (M)	N/A
NORTHINGS (M)	N/A
SPHEROIDAL HT (M)	N/A
ORTHOMETRIC HT (M)	N/A
GRID ZONE DESIGNATOR	N/A
TRANSFORMATION AGENCY	N/A
TRANSFORMATION DATE	N/A

GRAVITY VALUE: N/A	TYPE OF STN: N/A	REF: N/A
AIR PHOTO: N/A	REF: N/A	SCALE: N/A
IMAGERY: N/A	REF: N/A	SCALE: N/A

OFFICE INPUT BY: LCPL COWARD	UNIT: IGRS	DATE: 25 AUG 2005
OFFICE CHECKED BY: LCPL DICKEN	UNIT: IGRS	DATE: 25 AUG 2005

STATION MONUMENT AND SITE DETAILS

STATION LONG NAME: MU21

STATION NUMBER: MU21 4 CHAR ID: MU21

LOCATION: AL MUTHANA COUNTRY: IRAQ

STATION ADDRESS: IRAQI ARMY BKS

TEL: N/A FAX: N/A

LAND OWNER ADDRESS: N/A

TEL: N/A FAX: N/A

TYPE OF MARK: HARN

CONDITION: GOOD

MARK SETTING: FINE MARK ON REBAR NO OF REBARS: 2

MONUMENT PHOTO / SKETCH



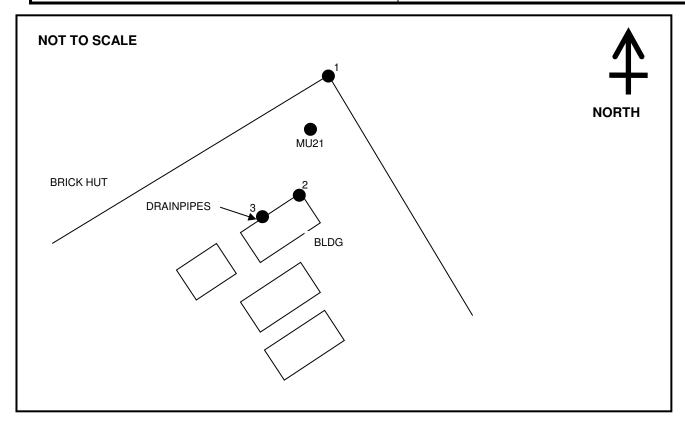
PREPARED BY: LCPL AVIS	UNIT: IGRS	DATE: 04 JULY 2005
CHECKED BY: SPR LOCKHART	UNIT: IGRS	DATE: 04 JULY 2005

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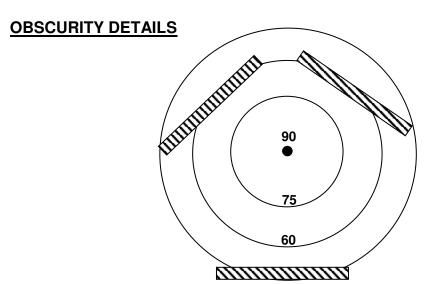
TOPO FORM OF

STATION DIAGRAM

STATION LONG NAME: MU21
STATION NUMBER: MU21
4 CHAR ID: MU21



NO	DESCRIPTION	BRG/HORZ ANGLE	DISTANCE(M)
1	NORTH CORNER OF COMPOUND	195°	11
2	NORTH CORNER OF BUILDING	316°	9
3	MIDDLE DRAIN PIPE	2°	20
4			

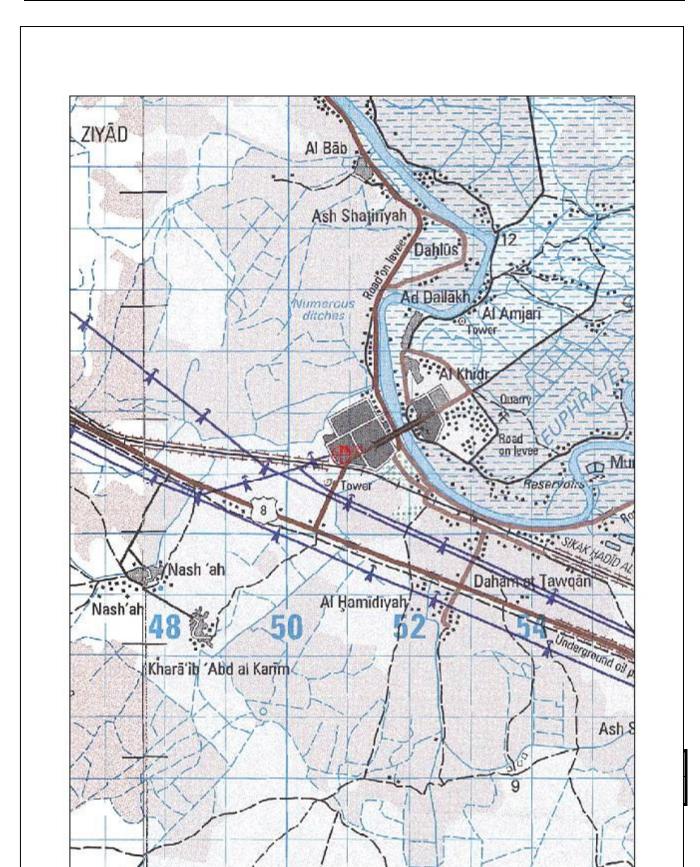


PREPARED BY: LCPL AVIS	UNIT: IGRS	DATE: 04 JUL 2005
CHECKED BY: SPR LOCKHART	UNIT: IGRS	DATE: 04 JUL 2005

ACCESS MAP

STATION LONG NAME: MU21
STATION NUMBER: MU21 4 CHAR ID: MU21

MAP DETAILS	SERIES: K643	SHEET: 5152
EDITION: 1-NIMA	SCALE: 1:100,000	GR: 38R NV 50898 51273



ACCESS DESCRIPTION

STATION LONG NAME: MU21
STATION NUMBER: MU21
4 CHAR ID: MU21

MAP DETAILS	SERIES: K643	SHEET: 5152
EDITION: 1-NIMA	SCALE: 1:100,000	GR: 38R NV 50898 51273

From GR 38R NV 265 610 turn NE onto metalled road for approximately 3km, join main route at GR 38R NV 305 605, head south east for approximately 22km. At GR 38R NV 510 500 turn northeast for approximately 1km, cross over the rail track into Al Khidr for approximately 200m, turn north west into Iraqi army compound.

PREPARED BY: LCPL AVIS	UNIT: IGRS	DATE: 04 JUL 2005
CHECKED BY: SPR LOCKHART	UNIT: IGRS	DATE: 04 JUL 2005

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APPROACH PHOTOGRAPHS

STATION LONG NAME: MU21

STATION NUMBER: MU21 4 CHAR ID: MU21

NEAR APPROACH FACING NORTH



FAR APPROACH FACING NORTH



TAKEN BY: SPR LOCKHART DATE TAKEN: 04 JULY 2005

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REVISION DATE: 05 FEB 98 TOPO FORM 01h

CARDINAL PHOTOGRAPHS

STATION LONG NAME: MU21

STATION NUMBER: MU21 4 CHAR ID: MU21

NORTH



SOUTH



TAKEN BY: SPR LOCKHART DATE TAKEN: 04 JULY 2005

CARDINAL PHOTOGRAPHS

STATION LONG NAME: MU21

STATION NUMBER: MU21 4 CHAR ID: MU21

EAST



WEST



TAKEN BY: SPR LOCKHART DATE TAKEN: 04 JUL 2005

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WOODN DATE, OF FED OR